

## REMARKS

Claims 18-24 and 29 were pending in this application. Claims 18 and 22 were independent. Claim 18 has been canceled. Claim 19 has been amended to incorporate independent claim 18. Claims 20, 21 and 29 have been amended to change the claim upon which they depend. Claim 22 has been amended to clarify. No new matter has been added.

Claims 18-24 and 29 stand rejected by the Examiner under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out the subject matter of the invention.

Claims 18-21 and 29 stand rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over US Patent Number 4,063,220, issued to Robert M. Metcalf, *et al* on December 13, 1977 (hereafter "Metcalf"), in view of AMD's Am79C830 FORMAC Plus as disclosed in "The SUPERNET 2 family for FDDI – 1991/1992 World Network Data Book" (hereafter "AMD").

Claim 22 stands rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over AMD in view of US Patent 5,774,640, issued to Kay M. Kurio on June 30, 1998 (hereafter "Kurio") in further view of US Patent 4,860,193, issued to Steven R. Bentley, *et al* on August 22, 1989 (hereafter "Bentley").

Claims 23 and 24 stand rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over AMD in view of Kurio in further view of Bentley and in further view of US Patent Number 5,210,749 (for claims 23-24), issued to Farzin Firoozman, *et al* on May 11, 1993 (hereafter "Firoozman").

By virtue of the present amendment, claims 19-24 and 29 are now pending in this application, and claims 19 and 22 are independent.

### **Claim Rejections - 35 U.S.C. § 112**

Claims 18-24 and 29 stand rejected by the Examiner under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out the subject matter of the invention. Claim 18 has been canceled. Applicants have amended independent claims 19 and 22 to address the Examiner's concerns about the clarity of the claims. No new matter has been added. Applicants respectfully submit that with these clarifications, the rejection under 35 U.S.C. § 112, second paragraph can now be removed.

### **Claim Rejections - 35 U.S.C. § 103(a) – Claims 18-21 and 29**

Claims 18-21 and 29 stand rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Metcalf”) in view of AMD. Applicants respectfully traverse this rejection.

Independent claim 19 recites a device “wherein said ethernet control circuitry, said host interface circuitry, and said data receive control circuitry, said data transmit control circuitry, said receive data buffer and said transmit data buffer are all contained in a single Application Specific Integrated Circuit (ASIC).” This claims that “all [are] contained in a single [ASIC].”

This is vastly different from AMD. In AMD, the buffer memory is contained in a separate device and is not contained within the ASIC. See the Block Diagram in AMD at 1-1, 1-6, and numerous other locations within AMD.

In the Office Action, the Examiner asserts that “AMD disclosed that the AMD79C830 is contained in a single application specific integrated circuit (ASIC)”. However, this assertion is not supported with citations, and is in fact contrary to the teachings of AMD, as shown in the above citations.

There is no discussion in Metcalf of including the buffer memory in the ASIC either, so this element of independent claim 19 can not be found in the combination of Metcalf and AMD. As a result, the rejection under 35 U.S.C. § 103(a) can not be sustained.

Furthermore, there is no motivation to combine AMD with Metcalf. AMD never mentions Ethernet and Metcalf never mentions FDDI. These are two independent and distinct protocols, with no motivation to combine or to exchange technologies.

Claims 20, 21, and 29 depend upon claim 19 and are allowable for the same reasons as above.

### **Claim Rejections - 35 U.S.C. § 103(a) – Claim 22**

Claim 22 stands rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over AMD in view of Kurio in further view of Bentley. Applicants respectfully traverse this rejection.

First of all, the Office Action fails to show “a driver allowing for early indications and having an early lookahead size,” as is recited in claim 22, in the teachings of AMD, Kurio or Bentley.

Both AMD and Bentley teach hardware devices and do not provide teachings on drivers. As a result, the Office Action looks to Kurio for a driver, specifically at Figure 4 and column 7 lines 40-53. Figure 4 teaches an “Ethernet Device Driver” at 450 and 451. These are described in column 7 lines 40-53:

Layer 404, which provides communication services of the 40  
transport (4) and network (3) layers of the ISO model, can  
be provided by TCP/IP (404a), under NFS, or Integrity S2  
OSI LAN Transport Service, under FTAM-UX. Logical  
device driver 450, which is capable of communicating with  
both TCP/IP and OSI LAN Transport Service, is provided in 45  
layer 405. Logical device driver (also called "pseudo  
device") 450 appears as one physical device driver to the  
higher level communication protocols above layer 405.  
Logical device driver 450, however, controls both primary  
and alternate Ethernet controllers 311 and 312 through a 50  
physical device driver 451. The higher level communication  
protocols treat logical device driver 450 in the same manner  
as a standard Ethernet device driver.

While Kurio teaches a device driver, it does not teach that the driver  
allows for early indications nor that the driver has an early lookahead size, as recited  
in claim 22. The Office Action only cites to Kurio to provide a device driver, and then  
asserts that "it would have been obvious to utilize a driver" to do the early indications  
and early lookahead. However, the priority date on this application is in 1992, and at  
that time, drivers did not provide this functionality (with the possible exception of  
3Com drivers utilizing the present invention). An assertion that "it would have been  
obvious" is an insufficient basis to provide a rejection.

Furthermore, the Office Action looks to Bentley to provide the "adjusting  
said receive threshold according to said length of said packet." However, Bentley is  
misunderstood in the Office Action. Bentley teaches the use of the length of  
previously received packets to determine the threshold value. In the abstract of  
Bentley, the language is confusing, stating the subsequent block lengths are used to  
calculate the threshold. It is clearer in Bentley, column 5 lines 6-12 where the  
algorithm is described:

**In the preferred embodiment of the invention, the  
longest of the five consecutive data blocks is utilized as  
the C actual value for determining the new C threshold  
level. Obviously, in other data processing systems,  
other criteria can be established such as the average of 10  
a number of subsequent data block lengths or some  
statistical weighing technique.**

In either case, it is distinct from the term in claim 22 that calls for the use of the length of the incoming packet to set the threshold for the receipt of the remainder of that specific packet. Neither Bentley, AMD, nor Kurio discuss this aspect of claim 22.

As such, the combination of Bentley, AMD, and Kurio does not provide all of the elements of claim 22, and the rejection can not be sustained.

Third, Bentley can not properly be combined with AMD because Bentley is used in a different field. Bentley describes the internal bus architecture of a computer system, and is not in the field of communications. AMD discusses the FDDI communications protocol. It is therefore highly unlikely that one ordinarily skilled in the art using AMD would know about Bentley, without the instruction of the present patent application.

Kurio is also distinct from Bentley and AMD. Kurio is related to fault tolerant computing and creating network interfaces to fault tolerant computers. It is unlikely that one ordinarily skilled in the art would look to a fault tolerant computer patent along with an internal bus architecture patent and a communications patent to derive the invention described in claim 22.

Applicants respectfully request that the Examiner remove the rejection to claim 22 under 35 U.S.C. § 103(a).

#### **Claim Rejections - 35 U.S.C. § 103(a) – Claims 23 and 24**

Claims 23 and 24 stand rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over AMD in view of Kurio in further view of Bentley and in further view of Firoozman. Applicants respectfully traverse this rejection.

Claims 23 and 24 are dependent claims that depend upon independent claim 22. As described above, claim 22 is patentable over the combination of Bentley, Kurio, and AMD. Therefore, dependent claims 23 and 24 are allowable for the same reasons.

There is no motivation to combine Firoozman with the others. As described above, there is no motivation to combine AMD with Bentley or Kurio

because these teachings are from different fields. Adding still a fourth teaching to this diverse set makes it even more improbable that one skilled in the art would combine Froozmand with teachings on fault tolerant computing and internal bus architectures. There is simply no motivation to combine four items to find the invention described in claims 23 and 24.

### CONCLUSION

The pending claims define subject matter that is patentable, even in light of AMD, Metcalf, Bentley, Firoozman, and Kurio. The application is in condition for allowance. Applicants respectfully request prompt issuance of this application.

The commissioner is authorized to charge deposit account 503650 for any fees associated herein.

Respectfully submitted,



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